

Institute AIFB, Knowledge Management Research Group (Prof. Dr. Rudi Studer)

We offer several

Bachelor and Master theses

for students in Information Engineering and Management (Informationswirtschaft), Business Engineering (Wirtschaftsingenieurwesen), Economics Engineering (Technische VWL), Computer Science and Engineering (Informatik), or any other areas with substantial affinity to, and background in the latter. The topic of the thesis is in the area of **human-aided computing**, applied to tasks related to the creation and management of semantic content, including conceptual models such as ontologies, and semantic descriptions of Web resources such as Web pages, images, graphics, music and video.



More concretely, each thesis will investigate the applicability of crowdsourcing and open innovation mechanics and platforms such as **Amazon's Mechanical Turk**¹, **InnoCentive**² and many others³ to core tasks of semantic content authoring. Examples of such tasks are: (i) the development of an ontology as widely based collaborative endeavor, for instance in form of Mechanical Turk projects or alike; (ii) the alignment of related ontologies in a similar setting; (iii) the semantic annotation of Web resources, in particular the annotation of resources oriented towards dynamicity (e.g., stream-like) and functionality. Each thesis, Bachelor or Master, will focus on maximally two tasks like the ones just mentioned; a selection will be made in agreement with the interested student. In addition, a Master thesis will include a survey and analytical assessment of human-aided tasks in semantic content authoring with respect to their potential to be effectively addressed as crowd-sourcing project.

Students interested in this topic should ideally have prior knowledge of semantic technologies, a solid background in Web technologies, and programming skills in at least one popular programming framework. Furthermore, the candidates should have a good command of English, as a pre-requisite for a feasible understanding of the related literature and documentation. The thesis itself can be written in German.

Contact

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¹ <https://www.mturk.com/>

² <http://www.innocentive.com/>

³ <http://www.openinnovators.net/list-open-innovation-crowdsourcing-examples/>